

117TH CONGRESS  
1ST SESSION

# S. 3428

To require the Secretary of Energy to establish a program to provide Federal financial assistance to support advanced nuclear reactors and associated supply chain infrastructure, and for other purposes.

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IN THE SENATE OF THE UNITED STATES

DECEMBER 16, 2021

Mr. MANCHIN (for himself and Mr. BARRASSO) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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## A BILL

To require the Secretary of Energy to establish a program to provide Federal financial assistance to support advanced nuclear reactors and associated supply chain infrastructure, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-  
2 tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Fission for the Future  
5 Act of 2021”.

6 **SEC. 2. ADVANCED NUCLEAR TECHNOLOGIES FEDERAL FI-**

7 **NANCIAL ASSISTANCE PROGRAM.**

8       (a) DEFINITIONS.—In this section:

1                             (1) ADVANCED NUCLEAR REACTOR.—The term  
2                             “advanced nuclear reactor” has the meaning given  
3                             the term in section 951(b) of the Energy Policy Act  
4                             of 2005 (42 U.S.C. 16271(b)).

5                             (2) ELECTRIC UTILITY.—The term “electric  
6                             utility” has the meaning given the term in section  
7                             3 of the Federal Power Act (16 U.S.C. 796).

8                             (3) ELIGIBLE ENTITY.—The term “eligible enti-  
9                             ty” means each of—

10                             (A) a State;

11                             (B) an Indian Tribe (as defined in section  
12                             4 of the Indian Self-Determination and Edu-  
13                             cation Assistance Act (25 U.S.C. 5304));

14                             (C) a Tribal Organization (as defined in  
15                             section 4 of the Indian Self-Determination and  
16                             Education Assistance Act (25 U.S.C. 5304));

17                             (D) a unit of local government;

18                             (E) an electric utility;

19                             (F) a National Laboratory;

20                             (G) an institution of higher education; and

21                             (H) a private entity specializing in—

22                                 (i) advanced nuclear technology devel-  
23                                 opment;

24                                 (ii) nuclear supply chains; or

11                         (5) NATIONAL LABORATORY.—The term “Na-  
12                         tional Laboratory” has the meaning given the term  
13                         in section 2 of the Energy Policy Act of 2005 (42  
14                         U.S.C. 15801).

15                             (6) PROGRAM.—The term “program” means  
16                             the program established under subsection (b)(1).

17                   (7) SECRETARY.—The term “Secretary” means  
18                   the Secretary of Energy.

**19 (b) ESTABLISHMENT OF PROGRAM.—**

20                   (1) IN GENERAL.—The Secretary shall establish  
21                   a program to provide Federal financial assistance to  
22                   eligible entities to support the commercial planning,  
23                   licensing, development, and construction, and con-  
24                   struction planning, of—

1                   (A) advanced nuclear reactors for the pur-  
2                   pose of enhancing grid resilience, reliability, and  
3                   security while also seeking to reduce emissions;

4                   or

5                   (B) supply chain infrastructure associated  
6                   with advanced nuclear reactors or related tech-  
7                   nologies.

8                   (2) COMPETITIVE PROCEDURES.—To the max-  
9                   imum extent practicable, the Secretary shall carry  
10                  out the program using a competitive, merit-based re-  
11                  view process that is consistent with section 989 of  
12                  the Energy Policy Act of 2005 (42 U.S.C. 16353).

13                  (c) APPLICATIONS.—An eligible entity desiring Fed-  
14                  eral financial assistance under the program shall submit  
15                  to the Secretary an application at such time, in such man-  
16                  ner, and containing such information as the Secretary may  
17                  require.

18                  (d) SELECTION.—

19                  (1) IN GENERAL.—In selecting eligible entities  
20                  to receive Federal financial assistance under the pro-  
21                  gram, the Secretary shall give special consideration  
22                  to projects—

23                   (A) to develop or provide services to sup-  
24                   port—

25                   (i) market analysis;

(ii) project structure models;

### (iii) models for electricity market

analysis;

(iv) nonelectric applications;

(v) financial models;

(vi) analysis, planning, and, as appro-

priate, management of environmental

8 issues at fossil fuel electric generation fa-

10 tire; and

11 (vii)

(vii) site planning, review, testing,

analysis, and preparation;

(B) to support licensing activities, permit-

ting, and environmental impact studies; and

(C) for—

(i)(I) the construction planning of ad-

vanced nuclear reactors; and

## (II) related—

(aa) planning and construction of

transmission and distribution systems;

#### (bb) modernization of generation

facilities;

(cc) development of microgrids;

and

(dd) supply chain infrastructure;

5                         (2) PRIORITY.—In selecting eligible entities to  
6 receive Federal financial assistance under the pro-  
7 gram, the Secretary shall give priority to eligible en-  
8 tities that—

(j) to reduce the cost of—

15 (I) infrastructure requirements:

### (II) transmission requirements:

17 and

18 (III) licensing and permitting re-  
19 quirements:

- 1                         (B) plan to support nonelectric applica-  
2                         tions, including supplying heat for—  
3                             (i) energy storage;  
4                             (ii) hydrogen or other liquid and gas-  
5                             eous fuel or chemical production;  
6                             (iii) industrial processes;  
7                             (iv) desalination technologies and  
8                             processes;  
9                             (v) isotope production;  
10                          (vi) district heating; and  
11                          (vii) other applications, as the Sec-  
12                          retary determines to be appropriate;
- 13                         (C) plan to support supply chain infra-  
14                          structure, including manufacturing, associated  
15                          with advanced nuclear reactors or related tech-  
16                          nologies;
- 17                         (D) have implemented or demonstrated the  
18                          ability to successfully implement workforce  
19                          training or retraining programs to train work-  
20                          ers to perform activities described in this sec-  
21                          tion; and
- 22                         (E) plan to be cost competitive.

23                         (e) COST SHARE.—Section 988 of the Energy Policy  
24                         Act of 2005 (42 U.S.C. 16352) shall apply to Federal fi-  
25                         nancial assistance provided under the program.

1   **SEC. 3. WORKFORCE CAPACITY BUILDING.**

2       Section 954(b) of the Energy Policy Act of 2005 (42  
3   U.S.C. 16274(b)) is amended—

4           (1) in the subsection heading, by striking  
5   “GRADUATE”;

6           (2) by striking “graduate” each place it ap-  
7   pears;

8           (3) in paragraph (2)(A), by inserting “commu-  
9   nity colleges, trade schools, registered apprenticeship  
10   programs, pre-apprenticeship programs” after “uni-  
11   versities.”;

12          (4) in paragraph (3), by striking “2021  
13   through 2025” and inserting “2022 through 2026”;

14          (5) by redesignating paragraph (3) as para-  
15   graph (4); and

16          (6) by inserting after paragraph (2) the fol-  
17   lowing:

18           “(3) FOCUS AREAS.—In carrying out the sub-  
19   program under this subsection, the Secretary may  
20   implement traineeships in focus areas that, in the  
21   determination of the Secretary, are necessary to sup-  
22   port the nuclear energy sector in the United States,  
23   including—

24           “(A) research and development;

25           “(B) construction and operation;

26           “(C) associated supply chains; and

1           “(D) workforce training and retraining to  
2       support transitioning workforces.”.

